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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,521	09/15/2003	Hiromi Hiramatsu	2635-178	8032
23117	7590	11/05/2004	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			MCCALL, ERIC SCOTT	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/661,521	Applicant(s) HIRAMATSU, HIROMI	
	Examiner Eric S. McCall	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☒ Claim(s) 2 and 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/15/03</u> . | 6) <input type="checkbox"/> Other: ____ |

**IGNITION APPARATUS FOR INTERNAL
COMBUSTION ENGINE**

FIRST OFFICE ACTION

CLAIMS

35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Mackawa et al. (2003/0183218).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With regards to claim 1, Mackawa et al. teach an ignition apparatus for an internal combustion engine comprising:

a spark plug (2) wherein a signal electrode (4) for detecting a combustion pressure is provided at an outer circumference of a plug insulator built-in center electrode (33/21/22) [note, Fig. 1 shows the pressure sensor (4) at the outer circumference of the plug's center electrode];

a holding member (8/62; Fig. 3) which covers said outer circumference of said plug insulator (5) and has a signal terminal (7) connected with said signal electrode (4); and

a plug cap (1) fixed to said holding member (8/62), covers said outer circumference of said plug insulator and is connected with an ignition coil (3),

wherein:

an electrically grounded shield member (1/23) is provided on said outer circumference of said plug insulator (page 2, paragraph 33; ie. the ground electrode of the spark plug and the connecting surrounding metal body of the spark plug); and

said shield member is insulated from said signal electrode (Fig. 1 shows the center electrode 22 insulated from the ground electrode 23).

With regards to claim 3, Mackawa et al. teach the shield member (1) as a conductive body (page 2, paragraph 33) fitted to the outer circumference of the plug insulator (5).

With regards to claim 4, Mackawa et al. teach an insulating member between the shield member (1) and the signal electrode (4) [Fig. 3 shows a space between the shield (1) and the signal electrode (4) wherein this space is interpreted as suggesting an insulating member as claimed].

With regards to claim 5, Mackawa et al. teach a space between the shield (1) and the plug insulator (5) wherein this space is interpreted as an insulating body fitted to the outer circumference of the plug insulator (5) as claimed. Furthermore, the signal electrode (4) is in contact with this space, and thus the signal electrode is provided on the insulating body as claimed.

With regards to claim 6, Fig. 3 of Mackawa et al. suggests the shield member (1) provided on the "whole surface" opposite the signal electrode (4) as claimed.

Allowable Subject Matter

Claims 2 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2 has been found to be allowable over the prior art because the prior art fails to teach or suggest a shield member being a metal paste coated on the outer circumference of the plug insulator as claimed in combination with the limitations of claim 1 from which claim 2 depends.

Claim 7 has been found to be allowable over the prior art because the prior art fails to teach or suggest a shield plate for shielding electrical noise provided on the cap cover, which covers the plug cap, around the signal electrode and signal terminal as claimed in combination with the limitations of claim 1 from which claim 7 depends.

RELEVANT ART


The Applicant's attention is directed to the enclosed "PTO-892" form for the prior art made of record and not relied upon but considered pertinent to the state of the art of the Applicant's disclosure.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Eric S. McCall
Primary Examiner
Art Unit 2855
Nov. 03, 2004